

0/20

#3



OIPE

## RAW SEQUENCE LISTING

DATE: 05/21/2002

PATENT APPLICATION: US/10/046,801

TIME: 15:18:40

Input Set : N:\Crf3\RULE60\10046801.RAW.txt

Output Set: N:\CRF3\05212002\J046801.raw

ENTERED

```

1 <110> APPLICANT: Unger, Evan C.
2 <120> TITLE OF INVENTION: Charged Lipids and Uses For The Same
3 <130> FILE REFERENCE: UNGR1592
4 <140> CURRENT APPLICATION NUMBER: 10/046,801
5 <141> CURRENT FILING DATE: 2002-05-13
8 <150> PRIOR APPLICATION NUMBER: US/09/540,448
9 <151> PRIOR FILING DATE: 2000-03-31
11 <150> PRIOR APPLICATION NUMBER: 08/925,353
12 <151> PRIOR FILING DATE: 1997-09-08
13 <160> NUMBER OF SEQ ID NOS: 37
14 <170> SOFTWARE: PatentIn Ver. 2.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 5
18 <212> TYPE: PRT
19 <213> ORGANISM: Artificial Sequence
20 <220> FEATURE:
21 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
W--> 22 <221> NAME/KEY: UNSURE
23 <222> LOCATION: (4)
24 <223> OTHER INFORMATION: X is azetidine
W--> 25 <400> 1
W--> 26      Trp Tyr Gln Xaa Tyr
27          1           5
29 <210> SEQ ID NO: 2
30 <211> LENGTH: 12
31 <212> TYPE: PRT
32 <213> ORGANISM: Artificial Sequence
33 <220> FEATURE:
34 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
W--> 35 <221> NAME/KEY: UNSURE
36 <222> LOCATION: (7)
37 <223> OTHER INFORMATION: X is azetidine
W--> 38 <400> 2
W--> 39      Trp Pro Gly Trp Tyr Gln Xaa Tyr Ala Leu Pro Leu
40          1           5           10
42 <210> SEQ ID NO: 3
43 <211> LENGTH: 14
44 <212> TYPE: PRT
45 <213> ORGANISM: Artificial Sequence
46 <220> FEATURE:
47 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
W--> 48 <221> NAME/KEY: UNSURE
49 <222> LOCATION: (9)

```

## RAW SEQUENCE LISTING

DATE: 05/21/2002

PATENT APPLICATION: US/10/046,801

TIME: 15:18:40

Input Set : N:\Crf3\RULE60\10046801.RAW.txt

Output Set: N:\CRF3\05212002\J046801.raw

```

50 <223> OTHER INFORMATION: X is azetidine
W--> 51 <400> 3
W--> 52      Phe Glu Trp Pro Gly Trp Tyr Gln Xaa Tyr Ala Leu Pro Leu
53          1              5              10
55 <210> SEQ ID NO: 4
56 <211> LENGTH: 4
57 <212> TYPE: PRT
58 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
61 <400> SEQUENCE: 4
62      Arg Gly Asp Ser
63          1
65 <210> SEQ ID NO: 5
66 <211> LENGTH: 6
67 <212> TYPE: PRT
68 <213> ORGANISM: Artificial Sequence
69 <220> FEATURE:
70 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
71 <400> SEQUENCE: 5
72      Gly Arg Gly Asp Ser Pro
73          1              5
75 <210> SEQ ID NO: 6
76 <211> LENGTH: 4
77 <212> TYPE: PRT
78 <213> ORGANISM: Artificial Sequence
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
81 <400> SEQUENCE: 6
82      Gly Pro Arg Pro
83          1
85 <210> SEQ ID NO: 7
86 <211> LENGTH: 159
87 <212> TYPE: PRT
88 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
91 <400> SEQUENCE: 7
92      Asn Lys Leu Ile Val Arg Arg Gly Gln Ser Phe Tyr Val Gln Ile Asp
93          1              5              10              15
94      Phe Ser Arg Pro Tyr Asp Pro Arg Arg Asp Leu Phe Arg Val Glu Tyr
95          20              25              30
96      Val Ile Gly Arg Tyr Pro Gln Glu Asn Lys Gly Thr Tyr Ile Pro Val
97          35              40              45
98      Pro Ile Val Ser Glu Leu Gln Ser Gly Lys Trp Gly Ala Lys Ile Val
99          50              55              60
100     Met Arg Glu Asp Arg Ser Val Arg Leu Ser Ile Gln Ser Ser Pro Lys
101         65              70              75              80
102     Cys Ile Val Gly Lys Phe Arg Met Tyr Val Ala Val Trp Thr Pro Tyr

```

## RAW SEQUENCE LISTING

DATE: 05/21/2002

PATENT APPLICATION: US/10/046,801

TIME: 15:18:40

Input Set : N:\Crf3\RULE60\10046801.RAW.txt

Output Set: N:\CRF3\05212002\J046801.raw

```

103          85          90          95
104      Gly Val Leu Arg Thr Ser Arg Asn Pro Glu Thr Asp Thr Tyr Ile Leu
105          100          105          110
106      Phe Asn Pro Trp Cys Glu Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys
107          115          120          125
108      Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly
109          130          135          140
110      Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe
111          145          150          155
113 <210> SEQ ID NO: 8
114 <211> LENGTH: 26
115 <212> TYPE: PRT
116 <213> ORGANISM: Artificial Sequence
117 <220> FEATURE:
118 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
W--> 119 <221> NAME/KEY: UNSURE
120 <222> LOCATION: (9)
121 <223> OTHER INFORMATION: X is unknown
W--> 122 <400> 8
W--> 123      Asn Lys Leu Ile Val Arg Arg Gly Xaa Ser Phe Tyr Val Gln Ile Asp
124          1          5          10          15
125      Phe Ser Arg Pro Tyr Asp Pro Arg Arg Asp
126          20          25
128 <210> SEQ ID NO: 9
129 <211> LENGTH: 41
130 <212> TYPE: PRT
131 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
134 <400> SEQUENCE: 9
135      Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys Glu Arg Glu Glu Tyr Val
136          1          5          10          15
137      Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly Glu Val Asn Asp Ile Lys
138          20          25          30
139      Thr Arg Ser Trp Ser Tyr Gly Gln Phe
140          35          40
142 <210> SEQ ID NO: 10
143 <211> LENGTH: 9
144 <212> TYPE: PRT
145 <213> ORGANISM: Artificial Sequence
146 <220> FEATURE:
147 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
148 <400> SEQUENCE: 10
149      Ala Arg Arg Ser Ser Pro Ser Tyr Tyr
150          1          5
152 <210> SEQ ID NO: 11
153 <211> LENGTH: 10
154 <212> TYPE: PRT
155 <213> ORGANISM: Artificial Sequence

```

## RAW SEQUENCE LISTING

DATE: 05/21/2002

PATENT APPLICATION: US/10/046,801

TIME: 15:18:40

Input Set.: N:\Crif3\RULE60\10046801.RAW.txt

Output Set: N:\CRF3\05212002\J046801.raw

```

156 <220> FEATURE:
157 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
158 <400> SEQUENCE: 11
159     Gly Ala Gly Pro Tyr Tyr Ala Met Asp Tyr
160         1             5             10
162 <210> SEQ ID NO: 12
163 <211> LENGTH: 19
164 <212> TYPE: PRT
165 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
168 <400> SEQUENCE: 12
169     Arg Ser Pro Ser Tyr Tyr Arg Tyr Asp Gly Ala Gly Pro Tyr Tyr Ala
170         1             5             10             15
171     Met Asp Tyr
173 <210> SEQ ID NO: 13
174 <211> LENGTH: 21
175 <212> TYPE: PRT
176 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
179 <400> SEQUENCE: 13
180     Ala Arg Arg Ser Pro Ser Tyr Tyr Arg Tyr Asp Gly Ala Gly Pro Tyr
181         1             5             10             15
182     Tyr Ala Met Asp Tyr
183         20
185 <210> SEQ ID NO: 14
186 <211> LENGTH: 69
187 <212> TYPE: PRT
188 <213> ORGANISM: Artificial Sequence
189 <220> FEATURE:
190 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
W--> 191 <221> NAME/KEY: UNSURE
192 <222> LOCATION: (40)..(41)
193 <223> OTHER INFORMATION: X is any amino acid
W--> 194 <400> 14
195     Gly Glu Glu Cys Asp Cys Gly Ser Pro Glu Asn Pro Cys Cys Asp Ala
196         1             5             10             15
197     Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Asp Gly Leu Cys
198         20             25             30
W--> 199     Cys Ala Gly Cys Arg Phe Lys Xaa Xaa Arg Thr Ile Cys Arg Arg Ala
200         35             40             45
201     Arg Gly Asp Asn Pro Asp Asp Arg Cys Thr Gly Gln Ser Ala Asp Cys
202         50             55             60
203     Pro Arg Asn Gly Tyr
204         65
206 <210> SEQ ID NO: 15
207 <211> LENGTH: 73
208 <212> TYPE: PRT

```

## RAW SEQUENCE LISTING

DATE: 05/21/2002

PATENT APPLICATION: US/10/046,801

TIME: 15:18:40

Input Set : N:\Crf3\RULE60\10046801.RAW.txt

Output Set: N:\CRF3\05212002\J046801.raw

```

209 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
212 <400> SEQUENCE: 15
213   Glu Ala Gly Glu Asp Cys Asp Cys Gly Ser Pro Ala Asn Pro Cys Cys
214       1             5             10             15
215   Asp Ala Ala Thr Cys Lys Leu Leu Pro Gly Ala Gln Cys Gly Glu Gly
216           20             25             30
217   Leu Cys Cys Asp Gln Cys Ser Phe Met Lys Lys Gly Thr Ile Cys Arg
218       35             40             45
219   Arg Ala Arg Gly Asp Asp Leu Asp Asp Tyr Cys Asp Gly Ile Ser Ala
220       50             55             60
221   Gly Cys Pro Arg Asn Pro Leu His Ala
222       65             70
224 <210> SEQ ID NO: 16
225 <211> LENGTH: 68
226 <212> TYPE: PRT
227 <213> ORGANISM: Artificial Sequence
228 <220> FEATURE:
229 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
230 <400> SEQUENCE: 16
231   Glu Ala Gly Glu Glu Cys Asp Cys Gly Thr Pro Glu Asn Pro Cys Cys
232       1             5             10             15
233   Asp Ala Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Glu Gly
234           20             25             30
235   Leu Cys Cys Asp Gln Cys Arg Phe Lys Gly Ala Gly Lys Ile Cys Arg
236       35             40             45
237   Arg Ala Arg Gly Asp Asn Pro Asp Asp Cys Thr Gly Gln Ser Ala Asp
238       50             55             60
239   Cys Pro Arg Phe
240       65
242 <210> SEQ ID NO: 17
243 <211> LENGTH: 70
244 <212> TYPE: PRT
245 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Description of Artificial Sequence: Novel Sequence
W--> 248 <221> NAME/KEY: UNSURE
249 <222> LOCATION: (40)..(41)
250 <223> OTHER INFORMATION: X is any amino acid
W--> 251 <221> UNSURE
252 <222> LOCATION: (67)
253 <223> OTHER INFORMATION: X is any amino acid
W--> 254 <400> 17
255   Gly Gly Glu Cys Asp Cys Gly Ser Pro Glu Asn Pro Cys Cys Asp Ala
256       1             5             10             15
257   Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Asp Gly Leu Cys
258           20             25             30
W--> 259   Cys Asp Gln Cys Arg Phe Lys Xaa Xaa Arg Thr Ile Cys Arg Ile Ala

```

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 05/21/2002  
PATENT APPLICATION: US/10/046,801      TIME: 15:18:41

Input Set : N:\Crf3\RULE60\10046801.RAW.txt  
Output Set: N:\CRF3\05212002\J046801.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 4  
Seq#:2; Xaa Pos. 7  
Seq#:3; Xaa Pos. 9  
Seq#:8; Xaa Pos. 9  
Seq#:14; Xaa Pos. 40,41  
Seq#:17; Xaa Pos. 40,41,67  
Seq#:24; Xaa Pos. 5

## VERIFICATION SUMMARY

DATE: 05/21/2002

PATENT APPLICATION: US/10/046,801

TIME: 15:18:41

Input Set : N:\Crf3\RULE60\10046801.RAW.txt

Output Set: N:\CRF3\05212002\J046801.raw

L:22 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:25 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:1  
L:26 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:35 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:38 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2  
L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:48 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:51 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:3  
L:52 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:119 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:122 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:8  
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:191 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:194 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:14  
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:32  
L:248 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:251 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:17  
L:254 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:17  
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:32  
L:263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:64  
L:332 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:335 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:24  
L:336 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0